

Claims

1. A process for preparing a pet's chew comprising
  - preparing a mixture of a starch derivative, a plasticizer and a fibrous
  - 5 material;
  - converting said mixture into a thermoplastic starch; and
  - moulding the thermoplastic starch into the desired pet's chew,wherein the starch derivative is a chemically modified starch.
2. A process according to claim 1, wherein the chemically modified
- 10 starch is an oxidized starch, starch ester, starch ether, hydrolysed or partially hydrolysed starch or crosslinked starch.
3. A process according to claim 2, wherein the chemically modified starch is a hydroxyalkylated, carboxymethylated, acetylated starch or acid hydrolysed starch.
- 15 4. A process according to any of the preceding claims, wherein the starch derivative is a potato, wheat, corn, tapioca, rice or pea starch derivative.
5. A process according to any of the preceding claims, wherein the mixture further comprises a native starch or a physically modified starch, or a second chemically modified starch.
- 20 6. A process according to any of the preceding claims, wherein the plasticizer is chosen from the group of polyols, esters of citric acid and urea.
7. A process according to claim 6, wherein the plasticizer is glycerol.
8. A process according to any of the preceding claims, wherein the plasticizer is present in the mixture in an amount of from 5 to 35 wt.%,
- 25 preferably 18 to 35 wt.%, based on the dry solid weight of the mixture.
9. A process according to any of the preceding claims, wherein the fibrous material is chosen from the group of cellulose, hennep, coconut, grass, flax, potato and other natural fibers.
10. A process according to any of the preceding claims, wherein the
- 30 fibrous material is present in the mixture in an amount of from 1 to 35 wt.%,

preferably from 1 to 25, more preferably 2 to 20 wt.%, based on the dry solid weight of the mixture.

11. A process according to any of the preceding claims, wherein the fibrous material consists of fibers having a length between 23 and 2000  $\mu\text{m}$ ,  
5 preferably between 60 and 300  $\mu\text{m}$ .
12. A process according to any of the preceding claims, wherein the mixture comprises water in an amount of from 7 to 35 wt.%, based on the total weight of the mixture.
13. A process according to any of the preceding claims, wherein the  
10 mixture further comprises a branched polysaccharide, such as a gum, an alginate or derivative thereof, a malto-oligosaccharide, such as maltose, or a combination thereof.
14. A process according to any of the preceding claims, wherein the mixture further comprises one or more additives chosen from the group of,  
15 mono- or di-glycerides, lecithin, oils, fats (preferably ricinus oil), fatty acids or salts thereof (such as calcium stearate), filler materials, vitamins, coloring agents, aromas, sweeteners and taste enhancers.
15. A process according to any of the preceding claims, wherein the mixture is converted into a thermoplastic starch by extrusion at a temperature  
20 of from 95 to 180°C, preferably from 100 to 150°C.
16. A process according to claim 15, wherein the mixture is extruded through a mesh having a pore size of from 1 to 5 mm and cut to produce a granulate material.
17. A process according to any of the preceding claims wherein the  
25 moisture content of the thermoplastic starch is conditioned to 5 to 20 wt.%, preferably from 6 to 15 wt.%, more preferably from 7 to 10 wt.%, based on the total weight of the thermoplastic starch.
18. A process according to any of the preceding claims, wherein the thermoplastic starch is moulded by injection moulding at a temperature

ranging from 80 to 200°C, preferably from 110 to 170°C, into a mould of suitable shape and size.

19. A pet's chew obtainable by a process according to any of the preceding claims.

- 5 20. A pet's chew according to claim 19 having the form of a dog chew, bar or hollow or natural shape.